Customer Value-Oriented Business Education in The Post-Covid Era: The Case of MBA Programs in Russia

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Abstract

Purpose of the research: The Covid pandemic has been a time of enormous challenges in the management of education, business education included. Transformation in education technologies has been accompanied by changes in consumer values, which education management and marketing should now focus on. This paper investigates factors and parameters involved in formation of perceived customer value with regard to MBA programmes, using experience of e-learning during the Covid-19 pandemic.

Methods: To attain the stated goal, survey-based qualitative and quantitative two-stage research was carried out. This involved MBA students at leading Moscow universities who were studying online during the pandemic in 2020–2021 and for whom part-time learning suddenly turned into online learning for the whole period of study.

Key results: The research tested the significance of a theoretical approach to educational values (seen as an array of functional, epistemic, social and emotional values), to be integrated into MBA programmes by educational management. The findings revealed the parameters which currently determine the content of each of these four groups of values in MBA programmes, indicating that the structure of programme choice has already been formed. During the pandemic, the most significant parameters of online education market development have been the reputation of the university, the reputation and e-content of the MBA programme, flexible organization of the study process (based on e-technologies) and the availability of an online educational platform. Quantitative analysis enabled the authors to form a mathematical model of integral consumer assessment of usefulness, taking into account the combination of education value factors and their significance for various sociodemographic groups.

The findings proved our hypothesis about the significant dependence between sociodemographic characteristics of MBA students and what they value the most, which needs to be taken into account in knowledge management. This outcome can provide a compass for e-learning knowledge as it points

to the most relevant direction: clusterization while positioning business education programmes, and implementation of flexible individual e-learning paths when planning educational content.

Introduction

Global education has been seriously affected by the pandemic, which has made abundantly clear the dire need to drastically increase use of digital technologies. This has presented enormous challenges for the management of educational products. This paper looks into one such product, namely MBA programmes offered by four leading Russian business schools. The demand for such programmes has increased during the pandemic[1].

Changing demand for educational products makes the education market more attractive for new players, who can invest in the development of new educational products and technologies (Belenova and Arenkov 2021). At the same time, universities and business schools feel that competition for students is mounting (Rudd et al. 2012; Towers and Towers 2018; Durkin et al. 2012). In addition to the development of large private online educational organizations (e.g., SkillBox and Netology). Moreover, opportunities for education around the world are expanding, both in terms of form and content, as geographical boundaries seem to become less of an obstacle. This has led to increased competition in the business education market (Pucciarelli and Kaplan 2016) and makes it more difficult for consumers to make decisions (Marjanović and Pavlović 2018; Moogan 2018).

The greater the competition in the business education market and the more developed the market itself, the more important is the relationship with customers, as a mechanism for detuning them from competitors. It becomes vital for all educational institutions, on the one hand, to be aware of their unique educational value and, on the other, to constantly prove and demonstrate this value (Weinstein et al. 2016; Woodall 2012), providing greater customer satisfaction and distinguishing themselves from other business schools and educational choices. Researchers emphasize the importance of maintaining a balance in terms of value, both to and from customers (Kumar and Reinartz 2016). Here, customer value is understood to be broader than the ability to profit from customer lifetime value (CLV) (Kumar and Reinartz 2016); it includes network value (the ability of customers to recommend a product to others), scale value (due to economies of scale) and information value (data received from the client, which increase the validity of management decisions). Information value implies building a system for accumulating knowledge about customers, which is helpful for analysing not only how consumers behave but also why they do so, i.e., to determine peculiarities of their perception of consumer value, their personal motives for choosing a particular programme, their expectations and the logic behind choices (Stephenson et al. 2015). It can provide guidelines for strategic and tactical management of educational product brands and becomes especially relevant in conditions such as the pandemic and rapid digitalization, when significant changes occur in education requirements, in the motives that guide students when considering educational options and in education itself.

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1 https://marketing.rbc.ru/research/35057/

The study of perceived value formation and its influence on consumer behaviour in the context of MBA programmes should underlie programme positioning, content management and the overall organization of educational programmes. Hence the purpose of this work (based on qualitative and quantitative analysis) was to investigate factors and parameters involved in formation of perceived customer value with regard to MBA programmes, using experience of e-learning during the Covid-19 pandemic.

Research tasks:

1. Delineate customer segments according to the characteristics of perceived customer value and priorities for customer choice.
2. Based on assessments by customers (made after their learning experience during the pandemic), identify the most important directions for educational programme positioning, so that education management teams can primarily focus on these.

To resolve these tasks, the study tested three hypotheses:

(H1) During the pandemic, the rapidly developing online education market has witnessed formation of a stable structure to provide for customer value in MBA programmes, clearly dominated by utilitarian parameters.

(H2) In the Covid era, social and emotional criteria for customer choices are highly significant.

(H3) There is a meaningful relationship between the sociodemographic characteristics of MBA students and what they value the most, which needs to be taken into account in knowledge management.

Theoretical background and methodology of the research

Researchers note the increasing "power" of consumers in almost all markets and growth of conscious consumer behaviour (Kotler and Keller 2016; Gan and Wang 2017; Grönroos and Ravald 2011). It is therefore not surprising that universities and business schools have turned their attention towards educational marketing and the need to obtain a competitive advantage (Stephenson et al. 2015; Hemslye-Brown and Oplatka 2006) through managing relationships with customers and satisfying customer values (Moretti and Tuan 2014). Developing an understanding of the application of marketing concepts and tools in education is an important theoretical and practical task (Mills and Hair 2021).

Obtaining an MBA degree is a lengthy, costly and complex educational process, which requires careful consideration of consumer choice. Competition in the market for education is high, so the attention of contemporary research has been drawn, on the one hand, to differentiation and development of educational programme brands (Lomer et al. 2018; Wilkins and Huisman 2015) and, on the other, to analysis of programmes' perceived value, through the study of customer choice in relation to educational products (Jeckells 2021; Vincenthio et al. 2021; Choi et al. 2019; Yang and Mutum 2015). Researchers often view decision-making processes and selection of MBA programmes through the prism of students' needs, which also reveal their preferences (Al-Mutairi and Saeid 2016; Morgan and Direito 2016; Özmen et al. 2014). This is justified, since understanding of the parameters of choice allows one to better understand demand in the market for business education and to customize programmes in the best way. People's choices reflect their preferences and at the same time are influenced by economic considerations, individual characteristics, outside influences and many other factors (Kotler and Armstrong 2018).

The fit between what a business school offers and what customers are looking for in an educational product manifest itself in perceived customer value. Creating customer value is one of the main goals of marketing (Gummerus 2013; Babin and James 2010; Drucker 1954) and an essential category of marketing theory (Day 1999; Nilson 1992). The special quality of this category stems from the effect on consumer behaviour of such perceived value. In marketing, value has traditionally been defined as a key factor in generating behavioural intention (e.g., whether to buy a product, pay a high price or recommend something), satisfaction (McDougall and Levesque 2000; Zeithaml 1998) and loyalty, which, ultimately, is a means of gaining competitive advantage.

Analysis of perceived customer value in relation to educational products is based on marketing approaches (Kumar 2018; Kumar and Reinartz 2016; Gallarza, et al. 2011; Khalifa 2004; Woodall 2003; Anderson 1998; Zeithaml 1988). The value of an educational product is a complex phenomenon (Shvetsova and Khorosheva 2021). Consumers look at the offer of an educational programme through the prism of the goals that they need to achieve and the benefits they seek from education, given the costs that they will incur to get the desired result. In the meantime, a value judgement about such programmes will be forming in their minds – effectively the perceived value of the market offer, which may differ from how the company sees it (Schembri 2006). At this point, the consumer's preferences are revealed, with a possible convergence of the market offer value and prospective students' value orientations and their willingness to pay. This paper examines the structure of consumer value as reflected in the parameters of consumer choice.

Historically, the first approach to the analysis of consumer value assessment was based on classical economic theory: on the idea of a compromise between benefits and costs in the measuring of consumer value (Monroe 1990, Zeithaml 1988).

Afterwards more comprehensive approaches appeared, which were based on the ideas of behavioral economics and consumer behavior.

The researchers tried to identify the various components of perceived value. The most comprehensive and empirically well-founded in this area is the approach to consumer value assessment proposed by Sheth, Newman and Gross in *Why we buy what we buy: a theory of consumption values* (Sheth et al. 1991).

The authors evaluated five components of value that influence consumer choice:
1. *Functional*: the product's ability to perform essential and utilitarian functions
2. *Social*: suggesting a symbolic or demonstrative meaning associated with a specific group of people
3. *Emotional*: the product's ability to evoke feelings
4. *Epistemic*: associated with curiosity and the desire for knowledge
5. *Conditional*: context that increases or decreases the value of the product

This approach has been applied in a wide range of research areas, such as tourism, manufacturing and financial services. It has proved its usefulness in the PERVAL scale proposed by Sweeney and Soutar (Sweeney and Soutar 2001) to measure the perceived value of durable goods, and in the GLOVAL scale, developed to assess perceived value in tourism (Sánchez et al. 2006). It has also served as a methodological basis for a number of studies of consumer value in education (LeBlanc and Nguyen, 1999 (402 Canadian business college students); Ledden et al. 2007 (188 English MBA students); Ledden and Kalafatis 2010 (45 English MA graduates)).

It should be noted, however, that one of the parameters proposed by Sheth – conditional value – is, in fact, part of the other four. Some researchers emphasize that consumer value

is, firstly, contextual in nature, which means that the value of an object is subjectively different in different situations (Woodruff 1997; Day and Crask 2000; Sánchez et al. 2006) and, secondly, situational, i.e., assessed differently at different stages of the same educational programme; moreover, it can be reassessed decades after graduation (Dollinger 2018; Ledden and Kalafatis 2010). This is why the conditional value component was not used as a separate element in the methodology of the present study.

In the course of research, this approach has been adapted for the sphere of business education, allowing the authors to work with four of the components (Table 1).

Table 1. Components of customer value in MBA programmes

Consumer value	Expected gains
Functional	Gains associated with obtaining a degree, which is supposed to improve career and income prospects
Epistemic	Gains associated with the desire to develop professionally by acquiring new knowledge and skills
Social	Gains from belonging to a particular community, establishing professional and personal networking
Emotional	Gains associated with emotions, increased self-esteem, self-confidence and self-realization, taking pride in belonging to the brand

Compiled by the authors

When joining an MBA programme, students may set themselves different objectives, but one of these will always be central. It is this primary goal that determines each student's value orientation, so for practical purposes, it is essential not only to describe the value structure but also identify and rank the elements of a particular value for different kinds of customers.

The methodology of this research into MBA programme selection parameters takes into account the results of studies conducted in this domain in various countries, mainly before the pandemic (Table 2). It should be noted that there have been no publications on consumer choice parameters for MBA programmes on the Russian market during the Covid era; this makes the present research highly relevant.

The authors of this paper analysed more than 1000 motivational essays that prospective students wrote when applying for the MBA programme at the leading Russian university – Lomonosov Moscow State University; the analysis showed that these students paid attention to more than just the parameters mentioned in Table 2. They considered the following: tuition fees; the teaching teams and programme experts; curricular content; the possibility for flexible organization of the learning process; the reputation of the programme; the reputation of the university hosting the programme; amenities and the location of the campus; accreditation; the availability of foreign training modules; the availability of an online educational platform; the student community and graduates of the programme; the competence and friendliness of programme management; and the quality and content of information provided on the website. The research tested all these parameters.

Since the MBA programmes examined in this paper are meant for people involved in business activities in Russia, their target audience was segmented according to three socioeconomic characteristics of the business organizations in which the student applicants worked: (1) their positions at work, indicating their functional roles in business processes; (2) the region of operation; and (3) company size.

Table 2. Research into the factors that determine choice of an MBA study programme

Authors	Object of study	Main conclusions
Bannor, Dhaka 2014	Indian MBA agribusiness applicants	The preferred customer choice attribute was found to be accommodation/location, tuition fees and employment assistance.
Özmen, et al. 2014	The most important attributes when choosing a university to join an MBA programme in Turkey, based on study of websites and interviews with applicants	The university selection process is presented as a compromise based on a comparison of university attributes. The most important attributes were found to be university brand and tuition fees.
Mondal, Abu 2017	The process of online information searching by applicants when choosing among Asian business schools, based on factor analysis	7 factors were identified in the information search which influence decision-making: intellectual resources, programme costs, admission procedure, infrastructure condition, accreditation, cooperation and the institution's position in rankings.
Choi et al. 2019	Factors affecting choice of part-time MBA programmes in three US business schools	The most important factors (in descending order of importance) were found to be cost, location, accreditation, reputation of the university, possibility of studying at one's own pace, convenience of the schedule and competence of the faculty. Price is much more important than quality.
Wilkins et al. 2018	Motivation of MBA applicants in emerging economies (China and the UAE)	The key motive is the desire to acquire knowledge and skills.
Vincenthio, Renardi and Gunadi 2021	Preferences of MBA applicants in Indonesia (mixed study: focus group and interviews with applicants)	The most influential parameters were found to be total cost, duration of study, accreditation, university ownership status and location.
Jeckells 2021	Criteria for choice of online MBA programmes in the UK; interviews	Accreditation, cost and rating were found to be the key factors. Levels of online technology were less significant. International students' decision-making process was longer than that of local (British) students; it included careful gathering and comparing of information about the programme.

Compiled by the authors

In this way, the authors could study the structure of consumer value, as reflected in the parameters of consumer choice, and also the relationship between sociodemographic characteristics of MBA students and their priority value orientations, which management teams need to be aware of.

Research design

The research was based on surveys and was carried out in two stages. In the first stage, a qualitative exploratory study was conducted (further referred to as Study No. 1), with the aim of clarifying the parameters that consumers value in relation to MBA programmes and to determine relevant selection parameters or programme attributes, the significance of which was to be checked at the next stage. The second stage of the study (further referred to as Study No. 2) involved testing the hypotheses proposed by the authors about consumers' value perceptions in relation to MBA programmes, key consumer choice criteria and what students value the most.

The qualitative part of the research (Study No. 1) was based on the results of an online survey completed by 108 MBA students at the Faculty of Economics, Lomonosov Moscow State University, using Google Forms. The survey was conducted in April 2021, and it included an open-ended question about what students expected to gain from their MBA programme. The researchers received 108 completed questionnaires. Respondents' answers were formalized and correlated with four groups of values. The results of this work were used to design the questionnaire for the second part of the study.

Study No. 2 also used Google Forms to conduct a survey of MBA students from the four leading Russian universities that have the strongest brands in the educational market and the largest numbers of MBA students: Lomonosov Moscow State University (Department of Economics), the National Research University Higher School of Economics (Banking Institute), MGIMO University (School of Business and International Competencies) and RANEPA (Institute of Finance and Sustainable Development). These universities were ranked as being among the best Russian universities in the QS World University Rankings 2021[1] in the categories of "Business and Management", "Accounting and Finance" (Lomonosov Moscow State University, HSE University, MGIMO University, RANEPA) and "Economics" (Higher School of Economics, Lomonosov Moscow State University, RANEPA). Respondents were asked to complete an online survey, and 159 fully completed questionnaires were received. The questionnaires were filled out anonymously, and no added incentives were offered, so it can be assumed that the respondents did this sincerely and without prejudice. Sample characteristics are presented in Table 3. The survey was conducted between November and December 2021. All survey participants began their study during the pandemic.

Survey No. 2 consisted of three main blocks. The first block included closed, single-choice questions. Respondents were asked to choose what they saw as the key value of the MBA programme, that is, what prompted them to join it in the first place; there were also questions intended to explore details of this value (based on the parameters identified in Study No. 1). The second block of questions was aimed at studying customer choice parameters.

1 https://www.topuniversities.com/university-rankings/university-subject-rankings/2021/business-management-studies

Table 3. Characteristics of the sample

Demographic variable	Description	Frequency, %
Company size	Large companies with more than 500 employees	51.6%
	Medium-sized companies with 50 to 500 employees	28.3%
	Small businesses with fewer than 50 employees	20.1%
Position in management	Top managers and business owners	42.7%
	Middle managers	39.1%
	Line managers	15.1%
	Other professions (e.g., lawyers)	3.1%
Demographic variable	Description	Frequency, %
Region	Moscow	51.6%
	Russian million-plus cities	19.5%
	Medium and small cities in Russia	20.8%
	Abroad	8.2%

Compiled by the authors

Respondents were asked to evaluate the significance of 13 customer choice parameters for the MBA programme on a 5-point Likert scale, where 1 is not important at all, and 5 is extremely important. (The parameters were selected by analysing research literature on this topic.) The third block of questions examined the sociodemographic characteristics of the respondents.

To obtain statistically valid conclusions, the authors calculated descriptive statistics, carried out correlation analysis and built a multiple-choice model. Excel and R packages were used for data processing and calculations.

Research and results

The first-stage qualitative exploratory study (No. 1) was intended to clarify the composition of value parameters relevant in Covid era conditions. The formalized responses indicating gains expected from obtaining an MBA degree were correlated with four groups of values and included in the first block of the Study No. 2 questionnaire, meant to test hypothesis H1 (Table 4).

To test the first hypothesis (H1), the respondents were divided into four groups in accordance with the leading value orientations they stated in the questionnaire. Quantitative distribution by groups is shown in Table 5.

It can be seen from the table above that the majority of respondents saw the main gains from completing an MBA programme (i.e., what prompted them to study in the first place) in, firstly, obtaining a degree that would enhance their career and income prospects and, secondly, in development of their professional knowledge and skills. Notwithstanding this, quite a few respondents (18.9%) attached the most value to the emotional benefits of learning. To examine detalization of each group of students, we constructed group profiles based on the frequency of respondents' choosing this or that additional benefit of education, as stated in the questionnaire (Table 6).

Table 4. Gains expected from obtaining an MBA degree, according to Study No. 1

Customer value component	Gains expected from obtaining an MBA, according to Study No. 1
Functional	The opportunity to earn more Allows you to get a new position Launching your own start-up
Epistemic	Obtaining new professional knowledge Systematization of existing knowledge Meeting interests (I like the learning process itself)
Social	Will help establish professional contacts Enhancing professional and personal reputation
Emotional	Experiencing the MBA as an adventure A desire to test oneself Feeling proud of studying for an MBA Makes you feel more confident

Table 5. Quantitative distribution across four groups, in accordance with the leading value orientations

Group №	Leading component of customer value	%
1	Functional	41.5
2	Epistemic	36.5
3	Social	3.1
4	Emotional	18.9

Compiled by the authors

Table 6. Value profiles

Value component	Survey questions: "An MBA programme will help me…":	Groups with leading types of value orientation, %			
		1 *Functional*	2 *Epistemic*	3 *Social*	4 *Emotional*
Functional	Earn more	36.5	55.2	40	63
	Get a new position	56	20.7	40	30
	Launch own start-up	7.5	24.1	20	7
Epistemic	Acquire new professional knowledge	78.9	87.7	80	40
	Systematize existing knowledge	12.1	10.3	20	26.7
	Satisfy curiosity (I like the learning process itself)	9	2	0	33.3
Social	Establish professional contacts	21.2	43.2	20	53.3
	Enhancing professional and personal reputation	78.8	56.8	80	46.7
Emotional	Experiencing the MBA as an adventure	9	25.9	40	46.7
	A desire to test oneself	39.3	18.9	20	6.7
	Feeling proud of studying for an MBA	30.5	32.8	20	20
	Makes you feel more confident	21.2	22.4	20	22.4

Compiled by the authors

To visualize the obtained data, we used a tree-like hierarchical diagram in the Excel package. These charts show profiles for each group of learners and show the relative importance of different value components. The larger the area of the square, the more respondents indicated that this answer option was significant.
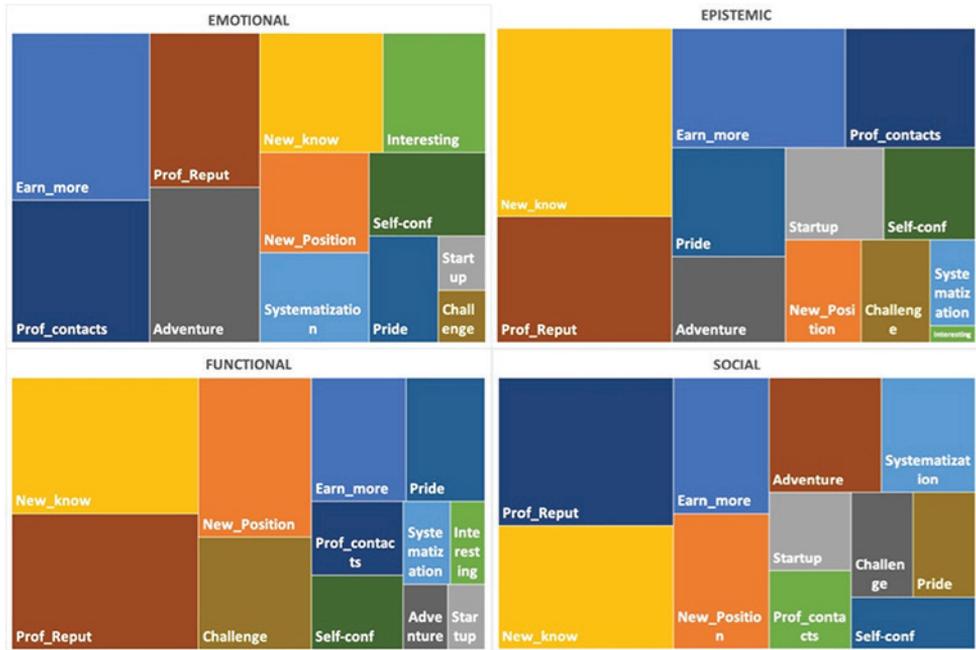

Figure 1. Value profiles for each group of customers

Data in Table 6 and Fig. 1 show that students from these four groups designated all the proposed parameters as important for choosing the university and programme of study, which indicates the existence of a common perception and understanding of a broad structure of business education values. It is also evident that respondents in all groups prioritized not only the main rational parameters of value (such as the cost of education, knowledge obtained and career prospects) but also the social and emotional parameters of consumer choice (such as new professional contacts, reputation, pride and new emotions). This finding from the survey supports the first two hypotheses: H1, regarding the presence of a stable structure to provide for customer value in MBA programmes, and H2, regarding the importance of social and emotional parameters of customer value in education during the pandemic. Personal communication and emotions are the parameters of the educational process that have suffered most during the period of pandemic restrictions. Online learning should therefore keep the social and emotional aspects of knowledge management in focus.

To analyse the value structure in detail, respondents' answers from the second block of the survey were processed using descriptive statistics, revealing the importance of each factor for all respondents taken together. The "reputation of the university" variable stood out, with the highest average score and the lowest spread; the "campus" variable received the lowest score, which is not surprising in the current context of the pandemic and online learning (Table 7).

Table 7. Structure of respondents' answers using descriptive statistics

Parameters	Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Cost of education	Price	159	3.403	1.143	1	3	4	5
Programme's team of teachers and experts	Professors	159	4.308	1.049	1	4	5	5
Content of programme's curriculum	Programme	159	4.283	1.026	1	4	5	5
The possibility for flexible organization of the learning process	Flexibility	159	4.296	1.094	1	4	5	5
Reputation of the programme	Programme's reputation	159	4.308	1.037	1	4	5	5
Reputation of the university hosting the programme	Reputation of the univ.	159	4.679	0.757	1	5	5	5
Comfort and location of the campus	Campus	159	2.189	1.279	1	1	3	5
Accreditation	Accreditation	159	3.931	1.233	1	3	5	5
Parameters	Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Availability of foreign training modules	International modules	159	3.176	1.408	1	2	4	5
Availability of an online educational platform	Online platform	159	4.119	1.299	1	3	5	5
Quality of the programme's student and alumni community	Community	159	3.604	1.191	1	3	5	5
Competence and friendliness of programme management	Management	159	3.881	1.219	1	3	5	5
Quality and content of information on the website	Site	159	3.874	1.236	1	3	5	5

Compiled by the authors

To check the correlation between different indicators, a correlation matrix was built (Table 8).

Table 8 shows that the parameters are positively correlated with one another; the most significant correlation can be observed between, firstly, the parameters "flexibility" and "availability of an online educational platform" and, secondly, "website" and "programme management", which are important factors for knowledge management in modern conditions. A rather strong correlation can be seen between the categories of "teachers" and "programme", "community of students and alumni" and "management", "university reputation" and "programme reputation", which once again confirms the high significance of social and emotional parameters of customer choice.

Table 8. Correlation matrix between the choice parameters

	Professors	Programme	Flexibility	Reputation of programme	Reputation of univ.	Campus	Accreditation	Intl. modules	Online platform	Community	Management	Site
Price	0.12	0.14	0.32	0.26	0.32	0.21	0.27	0.16	0.19	0.21	0.24	0.24
Professors		0.67	0.36	0.53	0.53	0.30	0.31	0.29	0.26	0.50	0.45	0.43
Programme			0.44	0.51	0.54	0.30	0.40	0.32	0.33	0.41	0.46	0.42
Flexibility				0.61	0.63	0.11	0.37	0.21	0.70	0.30	0.45	0.53
Reputation of programme					0.63	0.21	0.43	0.28	0.44	0.42	0.46	0.49
Reputation of univ.						0.16	0.36	0.15	0.48	0.34	0.37	0.46
Campus							0.29	0.36	0.07	0.34	0.34	0.24
Accreditation								0.54	0.36	0.43	0.41	0.41
Intl. modules									0.21	0.46	0.42	0.29
Online platform										0.31	0.45	0.50
Community											0.63	0.43
Management												0.70

Compiled by the authors

To distribute the choice parameters for respondents with different leading value orientations, diagrams were constructed using the boxplot method. In Figure 2, it can be seen that the parameter values for different groups are clearly different.

To compare the significance of the choice parameters for different groups, a radar diagram was constructed, with normalized average values of the importance of the parameters for each group of students (Figure 3).

The diagram indicates high importance attached to flexible organization of the learning process and availability of online educational platforms. The most significant selection parameters were found to include (1) the reputation of the university hosting the programme; (2) the reputation of the programme; (3) the possibility for flexible organization of the learning
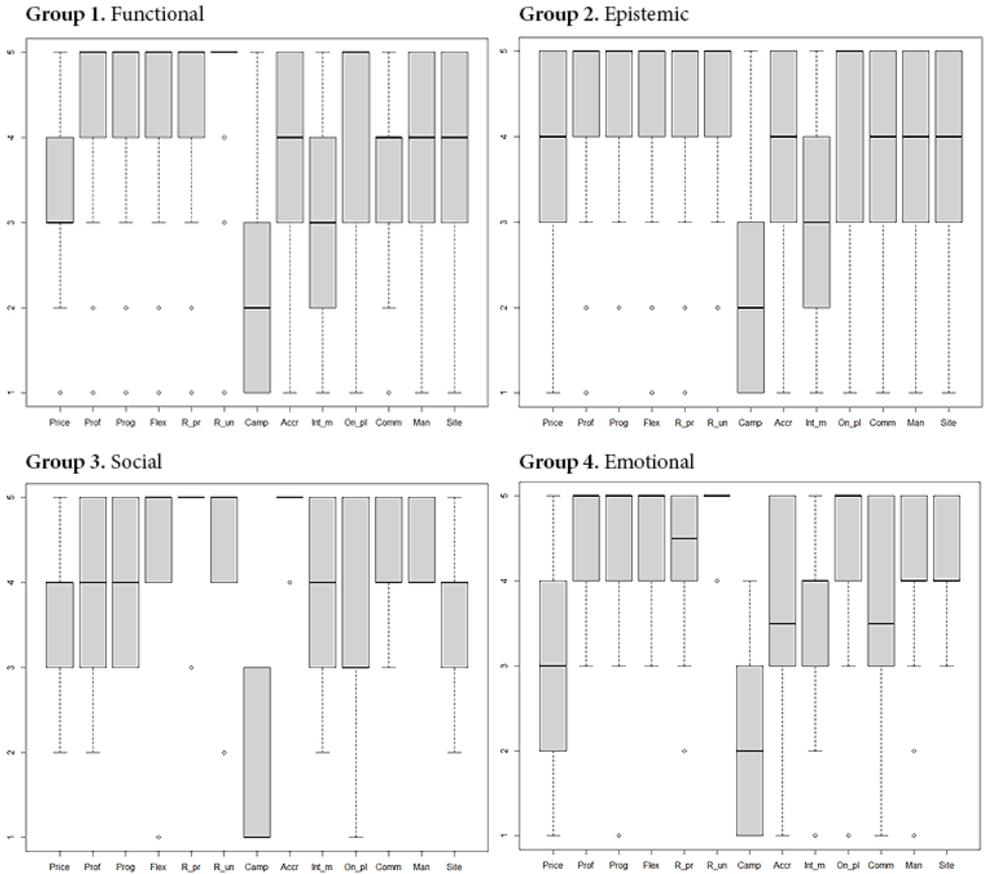
Figure 2. Parameters for choosing an MBA programme for respondents with different leading value orientations, using the boxplot method
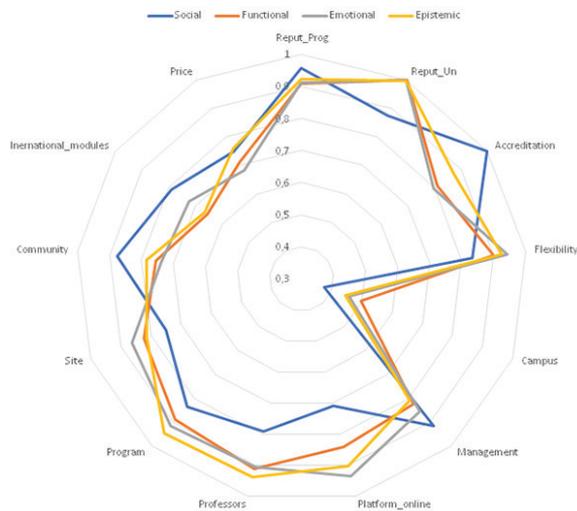

Figure 3. Parameters of customer choice for each group

process; (4) the curricular content; and (5) the team of teachers and programme experts. The spread of other parameters can be considered to be insignificant.

To test the third hypothesis (H3), the surveyed students were segmented according to three parameters essential to understanding what categories of Russian business they represent. These comprised (1) the position of the manager, (2) the region of residence and work, and (3) the size of the company. The obtained sociodemographic data, with normalized values, were used to construct the radar charts shown in Figures 4–6. The greatest discrepancy in the programme choice parameters can be seen among respondents from different types of business organizations.
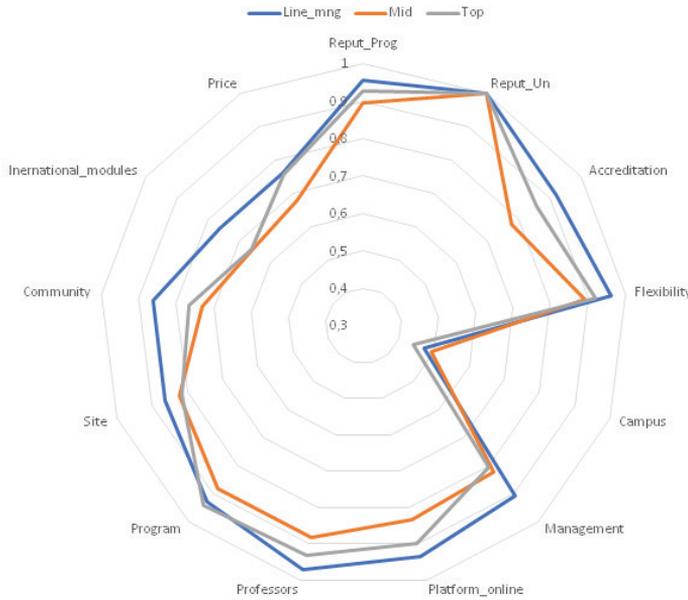
Figure 4. Parameters of respondents' choices depending on their position in the business organization
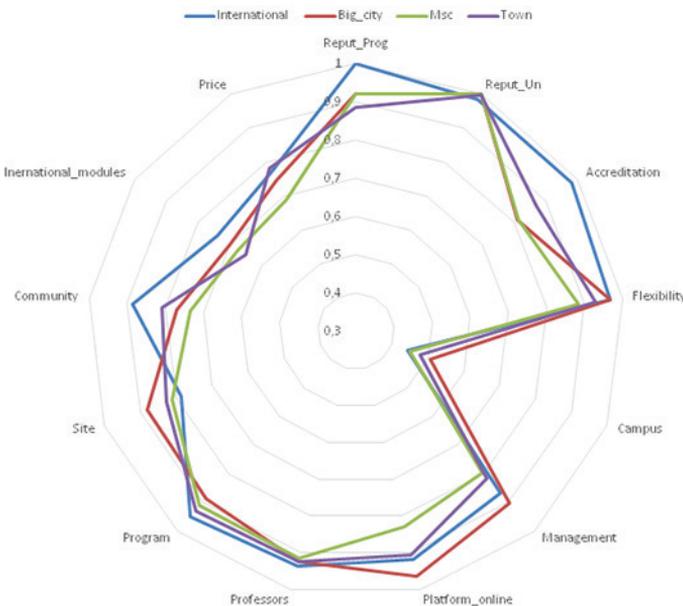
Figure 5. Parameters of respondents' choices depending on the region
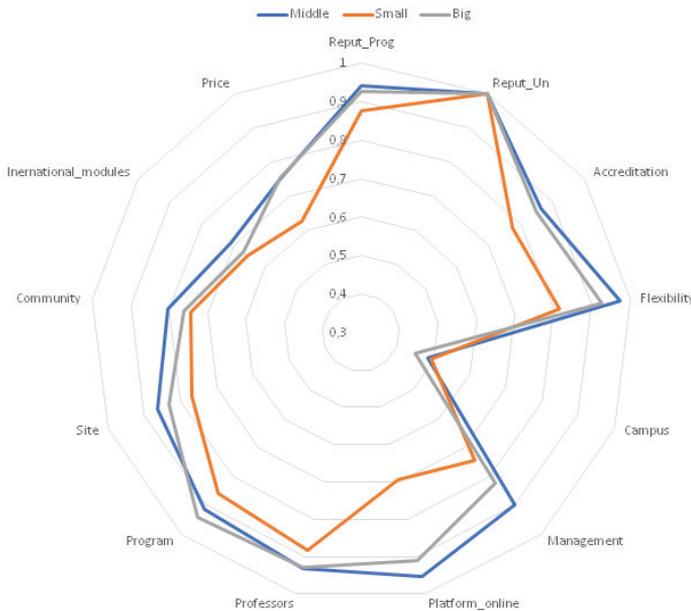
Figure 6. Parameters of respondents' choices depending on the size of the organization

To test the relationship between the key value orientation and each sociodemographic indicator, a multiple-choice logit model was built. This type of model is used when the dependent variable y is discrete and takes only a few values. In our case, the choice is unordered, since y takes on the values of *Functional, Social, Emotional* and *Epistemic* ($y_i = j, j = 0, ..., 3$ correspondingly), meaning groups formed according to the identified priority value orientations. The standard approach is to consider (random) utility functions $U_{ij}, j = 0, ..., 3$; $i = 1, ..., 159$ for each of the alternatives. The choice model means

$$y_i = j \Leftrightarrow U_{ij} = \max_k U_{ik}.$$

Considering regression $U_{ij} = x'_{ij}\beta_j + \varepsilon_{ij}$, where ε_{ij} satisfy Gauss-Markov conditions, we can write the model this way:

$$P(y_i = j \mid X) = P(U_{ij} > U_{ik}, k \neq j \mid X).$$

To obtain explicit formulas, the distribution of extreme values is used. In our case, the model has the following specification:

$$P(y_i = j \mid X) = \frac{\exp(x'_{ij}\beta_j)}{\sum_{s=0}^{3} \exp(x'_{is}\beta_s)}, j = 0,...,3; i = 1,...,159.$$

Here, x is the set of examined sociodemographic characteristics of MBA students.

Table 9 shows the coefficients of the multinomial logit model relative to the reference category *Functional*, with asterisks indicating the significant coefficients at respective significance levels. Since the variables are dummy, the "y" values of each of them for one of the categories are not presented in Table 9. For example, zero values of the variables "Big city", "Moscow" and "Towns" correspond to "foreign participant".

Table 9. Logit model

		Dependent variable (reference category is *Functional*):		
		Social	Emotional	Epistemic
		1	2	3
Region	Big_city	14.246***	1.402	0.640
		(0.745)	(1.196)	(0.836)
	Moscow	13.573***	0.766	0.691
		(0.600)	(1.154)	(0.751)
	Towns	-1.647***	1.453	1.537*
		(0.00000)	(1.219)	(0.811)
Position	Middle	0.192	-0.075	-0.183
		(1.326)	(0.794)	(0.529)
	Top	-0.222	0.660	0.340
		(1.342)	(0.748)	(0.525)
Company	Small	1.867	1.141	1.218**
		(1.190)	(0.696)	(0.553)
	Middle	0.228	0.331	0.767*
		(1.292)	(0.623)	(0.437)
	Constant	-16.654***	-2.795**	-1.599*
		(0.851)	(1.273)	(0.825)
	Akaike Inf. Crit.		371.457	
	Pseudo-R2 (McFadden)		0.076	
	Pseudo-R2 (McFadden, adjusted)		0.099	
	LR		33.852***	
	Note:		*p < 0.1; **p < 0.05; ***p < 0.01	

Likelihood ratio statistics confirmed the overall significance of the model. The table above shows that there were significant coefficients for all categories of included factors, which supports hypothesis H3 regarding the existence of a significant relationship between students' value orientations and their sociodemographic characteristics.

For example, for "Regions" and the category *Social*, the value «-1.647***» for "Towns" means that if the respondent was from "Regions", the logit coefficient for *Social* relative to *Functional* would decrease, and «1.537*» means that these respondents would be more likely choose the *Epistemic* category (in this model, only a coefficient sign has a direct interpretation). For "Big city" and "Moscow", the *Social* category was valued more highly. We can see that if the respondent was from a small or middle-sized firm, the chances of staying in the

Epistemic category were higher, compared to staying in *Functional*. For all "Positions", the probability of being in the *Emotional* category was significantly higher relative to *Functional*. This confirms the possibility of identifying segments of students by value orientations, based on sociodemographic characteristics.

Discussion and conclusion

The study has revealed factors and parameters of customer value in digital business education on the basis of the experience of Russian universities during the Covid era, using the example of MBA programmes. Much of the previous research in this area has focused on assessing the significance of the leading parameters (Jeckells 2021; Vincenthio et al. 2021; Choi et al. 2019) or core motivations for learning (Bhatt et al. 2021; Wilkins et al. 2018; Ronnie and Wakeling 2015). The present work has made it possible to advance the study of this issue and show a wide range of parameters that determine the value of a programme for students who have different priorities and belong to different sociodemographic segments. The conducted research supports the hypothesized formation of a stable, complex structure of MBA programmes based on consumers' value perceptions.

It has become clear that the parameters of most significance for development of the market for online education during the pandemic are the reputation of the university hosting the programme, the reputation of the MBA programme itself, the possibility for flexible organization of the educational process, programme content and the availability of an online platform. Emotional aspects of learning are also of high importance.

Flexible organization of the learning process and the availability of a specialized online educational platform have become crucial, primarily because of pandemic-related anxieties and restrictions. Even before the Covid period, these parameters factored in the choices of part-time MBA students who had to maintain a balance between their work, study and family responsibilities (Choi et al. 2019). Today, these parameters continue to grow in importance, owing to repeated lockdowns and growing demand for remote learning.

The study has proved the hypothesis about a significant relationship between the sociodemographic characteristics of MBA students and their priority value orientations, which may be crucial for knowledge management. Students with particular sociodemographic characteristics are likely to have specific priorities in their system of values and in the gains expected from an MBA programme. Educational organizations, and business schools especially, must be aware of these features when they position their educational programmes, develop brands or update communication systems. They need to create perceived value for customers and use an appropriate marketing mix to ensure that their customers really perceive this value in the expected way (Kumar and Reinartz 2016). Business schools can use this approach to design their programmes and develop strategies, including strategies for communications, services and service solutions.

Limitations and future research

The research presented in this paper was based on an analysis of Covid era experience in Russian universities only. Furthermore, the Russian market for education has certain economic and sociocultural characteristics that make it different from those in other countries,

just as the target audience for MBA programmes in Russia may differ socially, culturally and financially from target audiences for bachelor or postgraduate courses. To obtain a more comprehensive view of customer value structure and priorities in various types of education during the Covid era, which is most relevant for contemporary knowledge management, it will be necessary to broaden the area of research.

Thanks

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